

N<sup>o</sup> 25,342



A.D. 1911

(Under International Convention.)

Date claimed for Patent under Patents and Designs Act, 1907, being date of first Foreign Application (in the United States), } 11th Feb., 1911

Date of Application (in the United Kingdom), 14th Nov., 1911

At the expiration of twelve months from the date of the first Foreign Application, the provision of Section 91 (3) (a) of the Patents and Designs Act, 1907, as to inspection of Specification, became operative

Accepted, 25th Apr., 1912

### COMPLETE SPECIFICATION.

#### Improvements in Tires.

We, JOHN WARREN BURGESS, Medicine Dealer, and GEORGE FRANKLIN BURGESS, Medicine Dealer, both of 116, E. Brooks Street, Brookfield, in the County of Linn and State of Missouri, United States of America, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:

It is the object of the present invention to provide an improved tire for vehicle wheels and the invention relates more particularly to that class of tires which embody springs as the cushioning medium and are adapted for disposal upon any ordinary wheel rim.

The invention consists in improvements in tires of known construction, and of the sort shown and claimed in the Patents of Dobbs, 1839 of 1907; of Lee and others, 16,329 of 1906; of Sterling, 27,177 of 1903; and of Williams, 13,038 of 1898. To what is shown in these patents we lay no claim the present invention residing in the novel means provided for arranging and holding the springs in assembled relation upon the segments of the tire.

In the accompanying drawings:

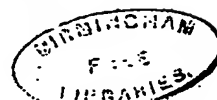
Figure 1 is a view partly in side elevation and partly in section of a tire constructed in accordance with the present invention, the same being shown applied to an ordinary vehicle wheel.

Figure 2 is a transverse sectional view.

Figure 3 is a perspective view of one end of one of the segments of the tire.

In the drawings, the tire is illustrated as embodying, primarily, a base comprising a plurality of segments 5 which are preferably in the nature of flat metallic plates adapted to arcuate form, they being adapted for disposal end to end about a wheel rim of the ordinary form. In their outer faces, the segments are formed, each adjacent each lateral edge with a groove 6 and these grooves register when the segments are properly assembled and serve a certain purpose to be presently explained. Upon each of the segments there are arranged several of the cushioning elements of the tire and each of these cushioning elements is in the form of a helical spring 7 bowed or arched as clearly shown in the drawings and disposed at its ends against the outer face of the

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*J. W. and G. F. Burgess's Improvements in Tires.*

respective segment 5. Ties, in the form of wires, are secured as at 9 to the said outer face of the segment 5 and extend parallel to the adjacent grooves 6, and these wires 8 extend over the end whirls of the springs 7 as clearly shown in Figures 2 and 3 of the drawings and serve to hold the same firmly to the segment 5. In order to arrest any tendency on the part of the springs 7 to straighten and thereby cause separation of their ends or a lateral stress to be exerted upon the wires 8, the ends of each spring are connected by means of a link which is clearly shown in Figure 2 of the drawings and is formed from wire bent to form two eyes 10 through which the ends of the spring engage, each link, between its ends, being depressed or bent inwardly toward the segment 5 as at 11. A tie, in the form of a wire 12 is secured to the outer face of each segment between the wires 8 and engages over the depressed portion 11 of the link 10, thus serving to hold the link firmly against the outer face of the respective segment. The tire embodying the present invention further includes a sheath which is fitted over these springs and segments and consists of several layers or plies 13 preferably of some stout material such as leather, water proofed canvas or the like, and a tread layer 14 of leather which leather layer is secured in any suitable manner upon the tread portion of the outermost one of the layers 13. In order to hold the sheath upon the segments, and also as a means for holding the segments in assembled relation about the rim, the edges of the sheath or more specifically speaking the edges of the outer of the layers 13 thereof, are fitted into the grooves 6 and wires 15 are then secured in these grooves, the wires serving the functions above noted.

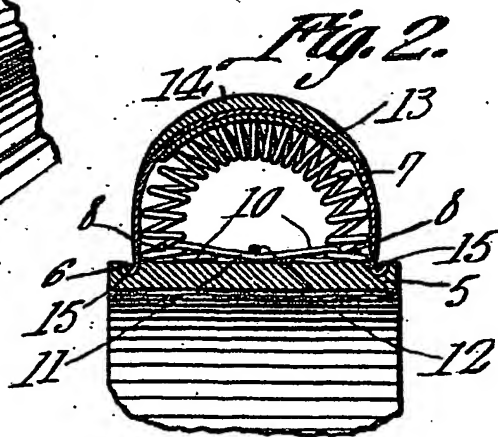
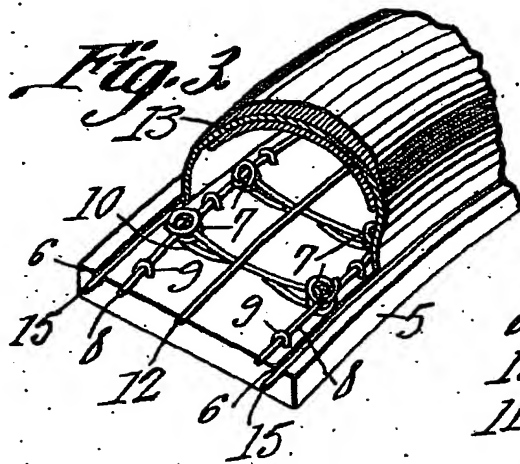
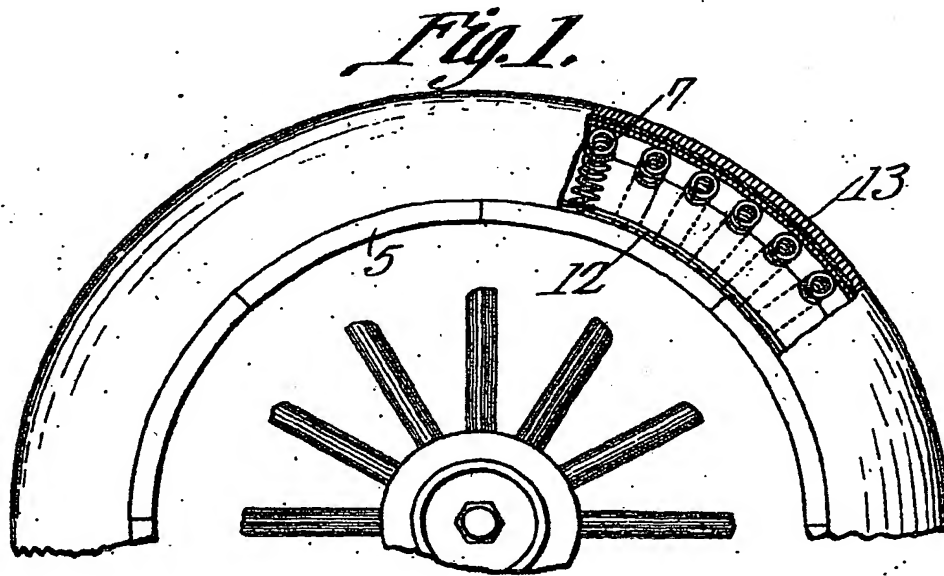
Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is;—

1. A tire characterized by a base carrying cushioning springs each of which is helical and bowed and secured at its ends to the base, there being a link connecting the ends of each spring and secured to the base, the spring being located in a casing.
2. The device of Claim 1 further characterized by ties secured to the base and holding the ends of the springs thereto there being an additional tie between the first mentioned ties and secured to the base and extending over the links to hold them to the base.
3. A tire constructed as set forth in the foregoing claims, and further characterised by the provision of ties which engage the longitudinal edges of the casing to hold the casing stretched over the springs and to reinforce the base.
4. The arrangement and combination of parts substantially as set forth with reference to the drawings.

Dated this 20th day of October, 1911.

JOHN WARREN BURGESS.  
GEORGE FRANKLIN BURGESS.

[This Drawing is a reproduction of the Original on a reduced scale.]



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